IN THE CLAIMS

Please amend the claims to read as follows:

1. (Cancelled)

2. (Currently Amended) ~~**The device according to claim 1, wherein:**~~ **A device comprising;**

a waveguide;

a finline substrate positioned within the waveguide;

a tunable dielectric layer positioned on the finline substrate, wherein the tunable dielectric layer comprises a barium strontium titanate (BSTO) composite containing materials that enable low insertion loss and phase tuning at room temperature;

a first conductor positioned on the tunable dielectric layer; and

a second conductor positioned on the tunable dielectric layer, the first and second conductors being separated to form a gap having a minimum width ranging from 2 micron to 50 micron;

the gap ~~**extends**~~ **extending** from a first end of the tunable dielectric layer to a second end of the tunable dielectric layer;

the gap ~~**includes**~~ **including** a first end, a center portion and a second end; and

the gap ~~**includes**~~ **including** exponentially tapered portions adjacent to said first and second ends.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Currently Amended) ~~The device according to claim 1, wherein~~ **A device comprising;**

a waveguide;

a finline substrate positioned within the waveguide;

a tunable dielectric layer positioned on the finline substrate, wherein the tunable dielectric layer comprises a barium strontium titanate (BSTO) composite containing materials that enable low insertion loss and phase tuning at room temperature;

a first conductor positioned on the tunable dielectric layer; and

a second conductor positioned on the tunable dielectric layer, the first and second conductors being separated to form a gap having a minimum width ranging from 2 micron to 50 micron; the second conductor ~~comprises:~~ **comprising** an RF choke.

7. (Currently Amended) ~~The device according to claim 1, wherein~~ **A device comprising;**

a waveguide;

a finline substrate positioned within the waveguide;

a tunable dielectric layer positioned on the finline substrate, wherein the tunable dielectric layer comprises a barium strontium titanate (BSTO) composite containing materials that enable low insertion loss and phase tuning at room temperature;

a first conductor positioned on the tunable dielectric layer; and

a second conductor positioned on the tunable dielectric layer, the first and second conductors being separated to form a gap having a minimum width ranging from 2 micron to 50 micron; the waveguide ~~includes~~ **including** first and second sections, and the tunable phase shifter further ~~comprises~~ **comprising**:

a first conductive plate positioned between the first and second sections of the waveguide; and

a second conductive plate positioned between the first and second sections of the waveguide, the first conductive plate being insulated from the waveguide and the second conductive plate being electrically connected to the waveguide.

8. (Currently Amended) The device according to claim 7, **the tunable phase shifter extending between a first end and a second end; and the device** further comprising an impedance matching section formed by a gap between the first and second conductive

plates**; the gap extending between the first end and the second end**.

9. (Currently Amended) The device according to claim 8, wherein the impedance matching section comprises:

~~an~~ **at least one** exponentially tapered gap between the first and second conductive plates**; the at least one exponentially tapered gap being situated adjacent at least one of the first end and the second end**.

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) ~~The device according to claim 11, wherein the impedance matching section comprises: an~~ **A device comprising;**

a waveguide;

a finline substrate positioned within the waveguide;

a tunable dielectric layer positioned on the finline substrate, wherein the tunable dielectric layer comprises a barium strontium titanate (BSTO) composite containing materials that enable low insertion loss and phase tuning at room temperature;

a first conductor positioned on the tunable dielectric layer;

a second conductor positioned on the tunable dielectric layer, the first and second conductors extending between a first end and a second end and being separated to form a gap having a minimum width ranging from 2 micron to 50 micron; and

an impedance matching section formed by at least one exponentially tapered gap between the first and second conductors**; the at least one exponentially tapered gap being situated adjacent at least one of the first end and the second end**.

13. (Currently Amended) A device comprising;

a waveguide;

a finline substrate positioned within the waveguide;

a tunable dielectric layer positioned on the finline substrate, wherein the tunable dielectric layer comprises a **composite** material that enables low insertion loss and phase tuning at room temperature ~~**and is**~~ **; the composite material comprising at least one substance** selected from the group of:

barium strontium titanate, barium calcium titanate, lead zirconium titanate, lead lanthanum zirconium titanate, lead titanate, barium calcium zirconium titanate, sodium nitrate, $KNbO_3$, $LiNbO_3$, $LiTaO_3$, $PbNb_2O_6$, $PbTa_2O_6$, $KSr(NbO_3)$, $NaBa_2(NbO_3)_5$, KH_2PO_4, ~~**and combinations thereof**~~;

a first conductor positioned on the tunable dielectric layer; and

a second conductor positioned on the tunable dielectric layer, the first and second conductors being separated to form a gap having a minimum width ranging from 2 micron to 50 micron.

14. (Currently Amended) The device according to claim 1, wherein the tunable dielectric layer comprises a barium strontium titanate (BSTO) composite**; the composite comprising at least one substance** selected from the group of:

BSTO-MgO, BSTO-$MgAl_2O_4$, BSTO-$CaTiO_3$, BSTO-$MgTiO_3$, BSTO-$MgSrZrTiO_6$**, and combinations thereof**.

15. (Currently Amended) A device comprising;

a waveguide;

a finline substrate positioned within the waveguide;

a tunable dielectric layer positioned on the finline substrate, wherein the tunable dielectric layer comprises a **composite** material that enables low insertion loss and phase tuning at room temperature**; the composite material being comprised of at least one substance and is** selected from the group of:

Mg_2SiO_4, $CaSiO_3$, $BaSiO_3$, $SrSiO_3$, Na_2SiO_3, $NaSiO_3$-$5H_2O$, $LiAlSiO_4$, Li_2SiO_3, Li_4SiO_4, $Al_2Si_2O_7$, $ZrSiO_4$, $KAlSi_3O_8$, $NaAlSi_3O_8$, $CaAl_2Si_2O_8$, $CaMgSi_2O_6$, $BaTiSi_3O_9$ and Zn_2SiO_4;

a first conductor positioned on the tunable dielectric layer; and

a second conductor positioned on the tunable dielectric layer, the first and second conductors being separated to form a gap having a minimum width ranging from 2 micron to 50 micron.

16. (Currently Amended) ~~The device according to claim 1, wherein~~ **A device comprising;**

a waveguide;

a finline substrate positioned within the waveguide;

a tunable dielectric layer positioned on the finline substrate, wherein the tunable dielectric layer comprises a barium strontium titanate (BSTO) composite containing materials that enable low insertion loss and phase tuning at room temperature;

a first conductor positioned on the tunable dielectric layer; and

a second conductor positioned on the tunable dielectric layer, the first and second conductors being separated to form a gap having a minimum width ranging from 2 micron to 50 micron; the tunable dielectric layer ~~comprises:~~ **comprising** an electronically tunable dielectric phase and at least two metal oxide phases.

17. (Cancelled)

18. (Cancelled)